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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/750,765 12/28/00 SWARTZ

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EXAMINER

PM82/0606

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BEHREND, H	
ART UNIT	PAPER NUMBER

3641

DATE MAILED:

06/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.

09/750765

Applicant(s)

Swartz

Examiner

Behrend

Group Art Unit

3641

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE one MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-20 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☐ Claim(s) _____ is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☒ Claim(s) 1-20 are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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1. The claims have been renumbered as claims 1-20 in accordance with the requirements of 37 CFR 1.121.

✓2. This application contains claims directed to the following patentably distinct species of the claimed invention. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be patentable. Currently, no claim appears generic.

I. The embodiment as shown in Fig. 5.

II. The embodiment as shown in Fig. 7.

III. The embodiment as shown in Fig. 10.

IV. The embodiment as shown in Fig. 11.

V. The embodiment as shown in Fig. 13.

VI. The embodiment as shown in Fig. 15.

VII. The embodiment as shown in Fig. 17.

✓ VIII. The embodiment as shown in Fig. 18.

✓3. Upon election of one of the species identified above as I-VIII, applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

✓A. Wherein the cathode is formed of a single metal only (e.g. see the specification on page 21 and claim 2).

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B. Wherein the cathode is formed of an alloy only (e.g. see the specification on page 22 lines 1-11).

C. Wherein the cathode is formed of a composite material only (as set forth in the specification on page 22 lines 17+).

D. Wherein the cathode metal contains tungsten microspheres (as set forth in the specification on page 23 lines 1+).

4. Upon election of one of the species identified above as A-D, applicant is further required under 35 U.S.C. 121 to elect a single specie of metal and/or material of which the cathode is formed (including all materials or constituents if it is an alloy, a composite, etc.), for purposes of examination. This additional requirement is to facilitate examining due to the diverse and broad range of materials disclosed and claimed as being suitable (e.g. see claim 2 and the specification on pages 21-23).

5. Upon election of one of the species identified above as A-D, applicant is further required under 35 U.S.C. 121 to elect a single specie of the number of barrier layers and of the material each barrier layer is made of. This additional requirement is to facilitate examining due to the range of barrier layers which may be present and of the materials each layer can be made of (e.g. see the specification on pages 22, 25).

6. Upon election of one of the species identified above as A-D, applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

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- V. Wherein the thermal conducting means consists of a thermocouple only.
 - W. Wherein the thermal conducting means consists only of a thermocouple connected to a diamond filament (as set forth in the specification on page 26 lines 3+).
 - X. Wherein the thermal conducting means consists, only of a thermocouple connected to a polymer filled with diamonds.
 - Y. Wherein the thermal conducting means consists, only of a diamond filament (as set forth in the specification on page 26 lines 17-21).
 - Z. Wherein the thermal conducting means consists, only of a polymer filled with diamonds (e.g. see claim 11).
7. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP §809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to

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be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

8. Any inquiry concerning this communication should be directed to Mr. Behrend at telephone number (703) 305-1831.

Behrend/cw
May 11, 2001



**HARVEY E. BEHREND
PRIMARY EXAMINER**